

DATE: March 2, 2001

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TO: Air Management Team

FROM: Lloyd Eagan – AM/7

SUBJECT: Risk Analyses for Diesel Exhaust Emissions from Generators¹

During our February 16, 2001 meeting we discussed the impacts of diesel exhaust emissions from generators and the inhalation risk screenings for hazardous air pollutants that have been generated in studies of these emissions. As mentioned during the meeting, the studies that have been conducted have developed risk factors in a range of 1.3 in 10,000 to 2.4 in 1,000. In other words, if the risk screening found a diesel concentration of 1.0 ug/m³, the risk is estimated to be between 130 and 2,400 in 1 million. These risks are associated with single source modeling results and do not reflect the additive or synergistic effects that emissions from multiple stationary or stationary combined with mobile sources might have. As we agreed during the meeting, these risk screenings have yielded some rather alarming results.

Hazardous air pollutant emissions that result from the combustion of a Group I virgin fossil fuel are currently exempt from the requirements of ch. NR 445, Wis. Adm. Code. Since diesel fuel is considered a Group I virgin fossil fuel, hazardous air pollutant emissions within diesel exhaust are currently exempt from regulation under ch. NR 445. However, based upon the risk screening data, we agreed in our February 16, 2001 meeting to assess the impacts of diesel exhaust emissions from newly proposed diesel generators during the review of the construction permit. Although there is currently no regulatory way to restrict the hazardous air pollutant emissions from these generators, as a matter of public awareness, we agreed to include the results of the risk screenings in the preliminary determination document of the construction permit for newly proposed units.

Therefore, any construction permit for a diesel generator that begins receiving public comments after the date of this memo, will conduct a risk screening analysis for hazardous air pollutants from diesel exhaust emissions and will discuss the results of the analysis within the construction permit's preliminary determination document.

As a reminder, construction permits that review hazardous air pollutant BACT or LAER should also be conducting a risk screening and providing the results of the screening within the preliminary determination document. This excludes categories of sources where a presumptive BACT or LAER has been developed, such as ethylene oxide sterilizers and asphalt plants.

Cc: Statewide Air Permit Team
Statewide Air Compliance Team
Stationary Source Modeling Subteam
Hazardous Air Pollutant Team

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